

## FUSION/ ANALYSIS



# A Proposed Construct for MDA

*Possible routes in  
developing MDA.*

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Maritime Domain Awareness (MDA) is a concept that transcends the boundaries between homeland defense and homeland security. During a cabinet-level MDA summit in May 2004, Mr. Paul McHale (Assistant Secretary of Defense) and ADM James Loy (Deputy Secretary, Department of Homeland Security), with the concurrence of Secretary of Defense Rumsfeld and Department of Homeland Security Secretary Ridge, brought together senior members of 16 respective departments and agencies involved in some degree with the maritime domain.

The ultimate goal of this summit was to devise a plan for these agencies to work together for implementation and continued execution of MDA.<sup>1</sup>

It was apparent that each of these agencies possessed a wide range of operational and intelligence capabilities that required some degree of fusion within the overarching goal of Maritime Domain Awareness. Although the concept of MDA as information is clear, how this information will be collected, analyzed, and disseminated or who will maintain overall authority

over the MDA remains to be developed. This requires a defined organizational construct that reaches across many agencies.

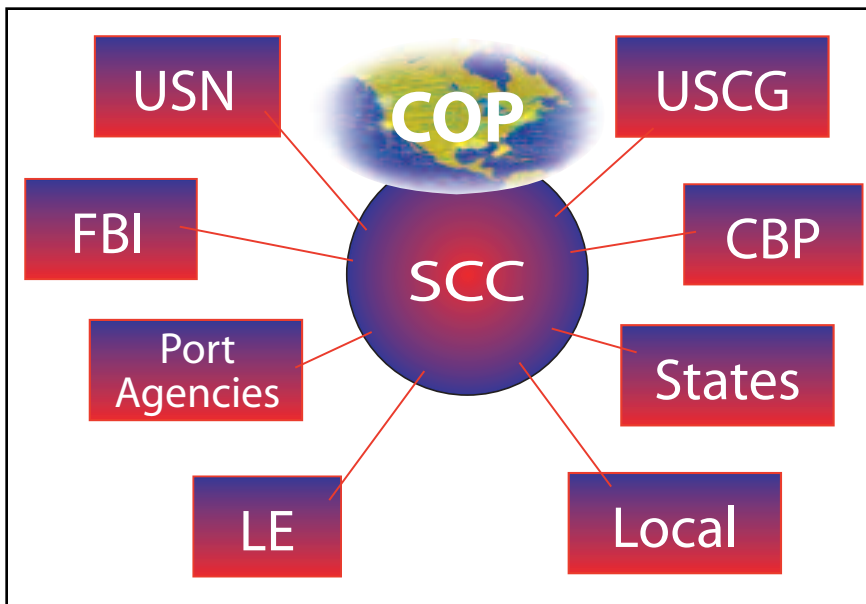
In traditional military theory, warfare is conducted on three levels:

- tactical (operations of individual or small groups of forces);
- regional/operational (operations of large groups of forces or fleets); and
- strategic (operations on a theater or national level).<sup>2</sup>

It is possible to link the interagency on these levels, using much of our current infrastructure, if it is aligned toward the common goal of obtaining MDA.

### Tactical MDA

It is a fundamental theory of the Department of Homeland Security (DHS) that effective homeland security is conducted on a local or tactical



**Figure 1: Potential agencies or groups that can contribute directly to a sector command center and share in the common operational picture to achieve tactical MDA.**

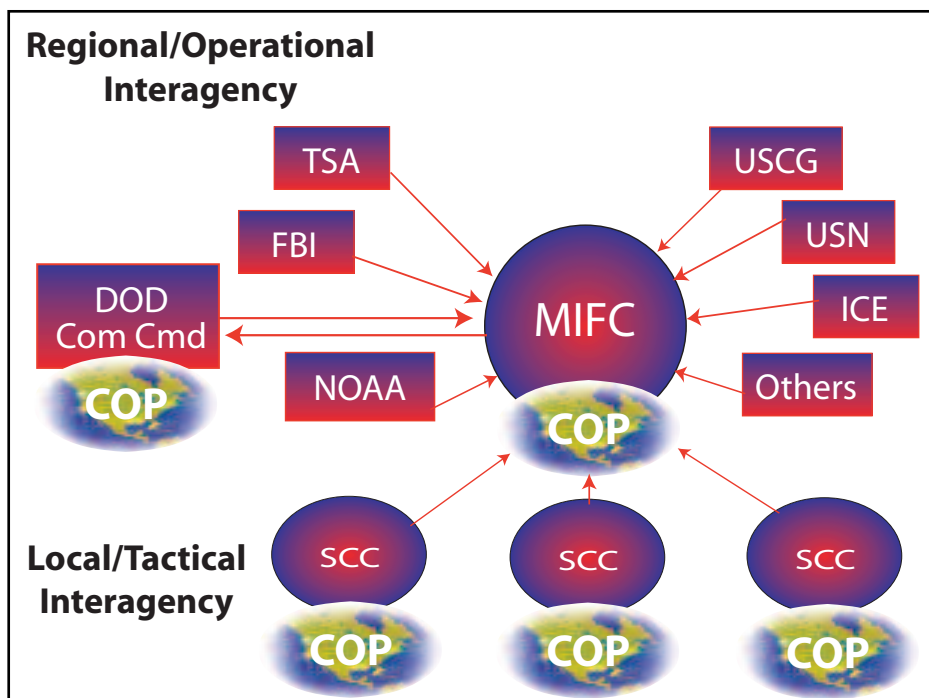
level. Much of the homeland security effort, therefore, focuses on local forces and first responders.<sup>3</sup> In terms of MDA, the tactical level focuses on ports and the maritime approaches to the United States. The Coast Guard's answer to the post-9/11 threat was a merging of responsibility under a newly designed USCG sector organization, an effective combination of marine safety office and operational commander responsibilities and assets. Coast Guard commands traditionally have close ties to other agencies in the ports, and this was reflected in the design of the model sector command center (SCC).

SCCs are far more than a merging of USCG traditional roles and responsibilities. Recognizing the number of agencies that operate in ports and the vast information requirements necessary to obtain true MDA, efforts are being made to make SCCs truly interagency. The sector command center will provide linkage to these agencies, including the establishment of formal liaison positions and data-sharing protocol, effectively merging regulation, law enforcement, and antiterrorist force protection data and procedures. Given their multi-agency approach to port security and littoral operations, SCCs are a natural choice for the creation of tactical MDA. This is illustrated in figure 1.

Multiagency sector command centers offer several advantages for the effective implementation of tactical MDA. By acting as combined, multiagency fusion centers, they provide a unique tactical picture that all MDA users can employ at the port level. This increased multiagency awareness provides for streamlined operations between all port agencies, while the use of multiagency sensors and databases allows for a tremendously enhanced capability for surveillance and anomaly detection. Additionally, the critical fusion function that can be performed by fully staffed and equipped SCCs allows tactical information to be entered into a common operational picture (COP) that can be accessed by MDA users in the regional and strategic spheres—the first step in obtaining a larger, regional picture and achieving strategic Maritime Domain Awareness.

### Regional/Operational MDA

Joint interoperability at the tactical level is an important first step in obtaining MDA, but can only go so



**Figure 2: Maritime intelligence fusion center structure.**

far in obtaining the overall goal of global maritime awareness. Tactical homeland security centers on the ports and their immediate approaches. The next step is viewing this information as part of a whole, to extend the reach of domain awareness to detect potential threats as far from the homeland as possible. This is the purpose of MDA at the operational or regional level.

The operational/regional level of coordination is generally considered to occur at a fleet or agency level. In the maritime arena, examples of regional coordination entities include U.S. Navy fleet/combatant commander (COCOM) intelligence staff, joint interagency task force components, and federal law enforcement centers. While each of these groups possesses its own unique area of focus and expertise, none is exclusively directed specifically toward Maritime Domain Awareness. The Coast Guard can perform this function with infrastructure currently in place, using its maritime intelligence fusion centers, or MIFCs (Figure 2).

MIFCs were created specifically to deal with the increased intelligence requirements of the maritime homeland security mission. Possessing more than 50 intelligence specialists and analysts, MIFCs collect, analyze, and disseminate operational intelligence, both to tactical units in the field and strategic fusion centers up the chain of command. Maritime intelligence fusion centers have access to national intelligence, law enforcement intelligence, and subject

matter experts in the intelligence community.<sup>4</sup> MIFCs focus on regional homeland security, migrant interdiction, counterdrug operations, defense readiness, living marine resources enforcement, and search and rescue—all components of Maritime Domain Awareness.

Maritime intelligence fusion centers serve as collection points for tactical intelligence, but can also provide key analytical function that is lacking at the tactical level. Given their regional nature and access to a broad amount of information from tactical and strategic sources, MIFCs can support tactical operations as well as piece together parts of an overall intelligence picture. It is evident that these analytical functions represent the first real step from local, responsive tactical MDA to a broader effort to obtain not only a wider area picture, but also to begin the trend analysis that is vital for overall awareness.

Although designed and staffed by the Coast Guard, MIFCs exercise a “joint” nature that is particularly valuable for an MDA construct. Maritime intelligence fusion centers were designed specifically to fuse and analyze the vast amount of joint and multi-agency information and intelligence regarding the maritime domain. MIFCs are co-located with Navy shipping coordination centers, and have established interagency liaisons with U.S. Immigration and Customs Enforcement (ICE), U.S. Customs and Border Protection (CBP), the National Security Agency, Federal Bureau of Investigation, USN COCOMs, and strategic intelligence sources. Using the unique dual law enforcement/military nature of the Coast Guard, MIFCs serve as collection, fusion, and analysis points for both law enforcement and military intelligence data.

### **Strategic MDA**

Ultimately, MDA is about obtaining a strategic global picture. This requires detailed, multiagency linkage with a broad perspective and use of capabilities at the highest levels of analysis, intelligence, and policy. Since strategy and overseas operations are inherently a function of the military services, it would seem that this is the first place to look for appropriate lessons and models that can be applied to the interagency to achieve MDA.

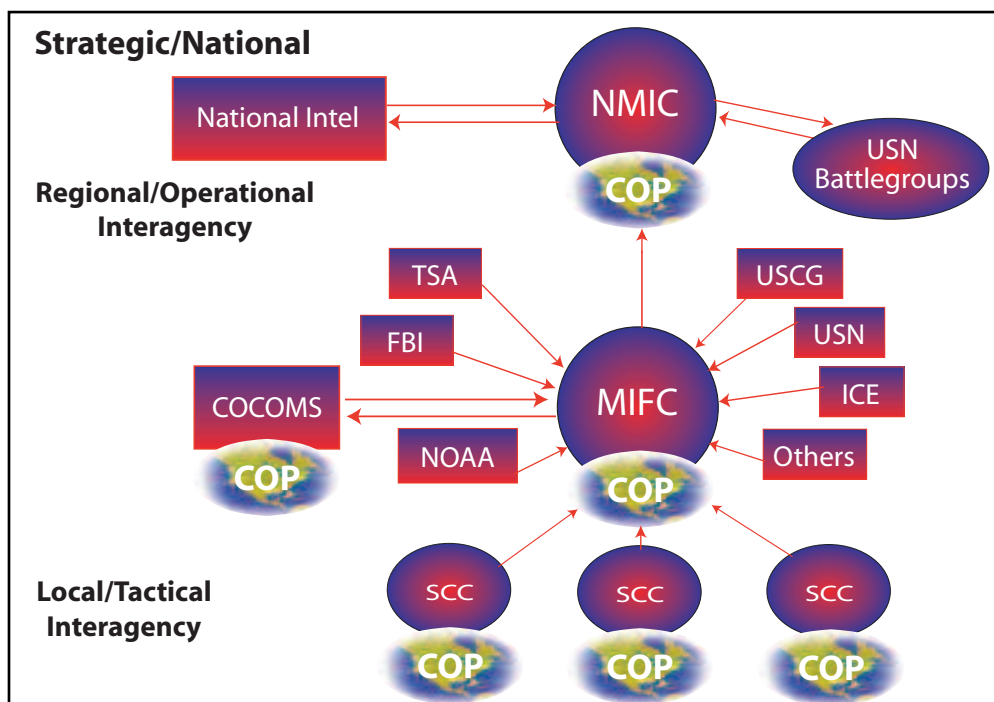
From the strictly military perspective, strategic command centers are inherent to all services; the key is finding one that can be adapted to the requirements of strategic MDA. In the maritime arena, MDA capability exists at the National Maritime Intelligence Center (NMIC). NMIC was designed as a unique

multiagency approach to general maritime intelligence, housing the Office of Naval Intelligence, the Coast Guard’s Information Coordination Center, and Marine Corps Intelligence Activity. Additionally, the National Maritime Intelligence Center has active liaison and interface with the Drug Enforcement Agency, CBP, ICE, and other DHS agencies with interest in the maritime domain.<sup>5</sup>

NMIC is particularly suited for strategic Maritime Domain Awareness in a number of respects. Employing a unique multiagency approach to conduct worldwide maritime analysis, NMIC employs connectivity to various COCOMs and homeland security agencies. From the analytical perspective, the U.S. Navy Office of Naval Intelligence is a principal source for maritime intelligence on global merchant affairs and a national leader in other nontraditional maritime issues, such as counternarcotics, fishing issues, ocean dumping of radioactive waste, technology transfer, and counterproliferation.<sup>6</sup> These programs have direct applicability to strategic Maritime Domain Awareness.

Strategically, NMIC has a number of distinct roles and responsibilities in the MDA realm. This includes long-term analysis to identify potential enemy trends in the maritime domain, and providing indication and warning analysis to share in the interagency. This information would be translated into actionable intelligence that can be added to the COP for immediate dissemination to the MDA operational and tactical levels and applicable COCOMs and agencies. In addition, information fusion and integration at NMIC allows for true compilation of maritime data that is vital for strategic planning, including generation of worldwide shipping lists, potential overseas cargo tracking and trends, WMD and counterproliferation studies, port vulnerability analysis, and other long-term analytical studies. As part of the Maritime Domain Awareness infrastructure, this information would flow freely in a cyclical manner between regional and tactical levels (Figure 3).

An expansion of NMIC to focus on strategic integration would place the facility as a strategic component of MDA that has uses in the national arena in established areas of counterterrorism and homeland defense. By enhancing the established facility with interagency liaison positions and creating a global COP, NMIC may work to bridge the gap between DHS, the Department of Defense, and national intelligence agencies with a vested interest in Maritime Domain Awareness



**Figure 3: National Maritime Intelligence Center strategic linkages.**

MDA is about information and information is available in abundance. At no time in history has so much information been available to operational commanders, but conversely, the huge amount of data that must be considered in the maritime domain often threatens to overwhelm traditional military and civilian analysts. This is the great paradox of our time. To be truly effective we must not focus on collection, but rather devise an effective method to sort the wheat from the chaff, to bring together these vast sources of information in one coherent picture to determine what is applicable to homeland security and homeland defense.<sup>7</sup>

This is possible by linking our current infrastructure. Much of the work has already been accomplished, either through the creation of new command structures (SCCs and MIFCs) or by intelligence organizations refocusing their efforts on maritime homeland security. By refocusing the “best of breed” multi-agency group in each level of warfare—tactical, regional/operational, and strategic—toward the common goal of MDA; by linking what we already have through shared situational awareness and a dedicated analytical effort; we can achieve true Maritime Domain Awareness.

#### **About the Author:**

A 1985 graduate of the Coast Guard Academy, CDR Bob Watts has served six tours at sea, most recently commanding CGC Steadfast. He has post-graduate degrees from the Naval War College, Old Dominion University, American Military University, and NPS Monterey, and is currently assigned to the USCG Office of Law Enforcement.

#### **Endnotes**

<sup>1</sup> Statement of Mr. Jeffrey High on the U.S. Coast Guard’s MDA efforts before the Subcommittee on Coast Guard and Marine Transportation Committee on Transportation and Infrastructure, U.S. House of Representatives ([www.house.gov/transportation/cgmt/10-06-04/high.pdf](http://www.house.gov/transportation/cgmt/10-06-04/high.pdf), October 2004).

<sup>2</sup> “Department of Defense Dictionary of Military and Associated Terms,” Joint Pub 1-02 (Washington D.C., Government Printing Office, 12 April 2001), 419, 311, 406.

<sup>3</sup> This underlying assumption has been key to a number of DHS decisions, including President Bush’s nomination of NYPD Police Commissioner Kerik to lead the Dept. See “All Homeland Security is Local,” *Slate*, Dec 3, 2004.

<sup>4</sup> Mark Stevens, “‘As Is’ National Maritime Domain Protection System,” (Monterey: Maritime Domain Protection Research Group, November 2004), 21.

<sup>5</sup> Bill Tarry, “Building the NMIC,” unclassified briefing to OPNAV Oct 2004

<sup>6</sup> Office of Naval Intelligence, <http://www.fas.org/irp/agency/oni/intro.htm>

<sup>7</sup> “The 9/11 Commission Report,” lessons learned/summary.